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AUTHOR	Huang, Shwu-yong L.; And Others
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ABSTRACT

A study investigated the effects of home language and some bilingual instructional practices on language minority or bilingual secondary students' learning of English as a second language. Subjects were 17 teachers and their students from 12 secondary schools in an urban school district with a high Hispanic enrollment. Teachers were observed for their interaction with students or others, settings in which the interactions occurred, purpose of the interaction, and specific behavior. Each was observed for 10 30-second intervals 2 separate times. Students' English skills were pre- and posttested using a standardized proficiency test and a locally-produced Spanish literacy test. Analysis of results indicates that, in general, cognitive processes in the bilingual classroom are teacher-centered, and peer group support in learning English was not emphasized. Teachers rarely placed students in pairs or small groups. It was also found that students' existing home language skills affected English achievement, as did some instructional strategies such as encouragement of self-management. It is concluded that first language skills should not be overlooked as an important foundation for second language learning, and that teachers should encourage students to manage their own learning. Contains 18 references. (MSE)

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CLASSROOM INSTRUCTION, HOME LANGUAGE, AND ENGLISH ACQUISITION OF SECONDARY BILINGUAL STUDENTS

Shwu-yong L. Huang

Judith Walker de Felix

Hersholt C. Waxman

University of Houston

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Education of immigrant and bilingual students has mostly focused on elementary schools, and that is where the research base has been built (Faltis, 1993). Very few studies have specifically dealt with immigrant and bilingual secondary students. This adolescent group often has had little or no experience in U. S. schools, and many had limited or sporadic schooling experience in their native countries (Minicucci & Olsen, 1992). In addition to social and cultural adjustment, they have to quickly achieve English proficiency in order to succeed in school because they usually cannot continue to develop their native language when enroll in public schools in the United States. To enhance their learning under the tremendous hardship, educational researchers have been searching for variables that are associated with their learning. Among various approaches, two emerging theoretical frameworks may address the search to meet this group's needs: (a) instructional processes, and (b) home language.

One of the best ways to examine instructional process is through systematic classroom observation techniques. Medley (1982) defines systematic classroom observation as a "scheme that specifies both the events that an observer is to record and the procedure to be used in recording them (p. 1842)." These techniques have been used to investigate effective teaching at the elementary, middle, and high school levels (Brophy & Good, 1986; Stallings & Mohlman, 1988; Waxman, 1995). They permit researchers to study the process of education in naturalistic settings, provide more detailed and precise evidence than other data sources, and can be used to stimulate change and verify that the change occurred (Anderson & Burns, 1989). Several observation studies have found that a number of classroom instructional behaviors are associated with students' learning outcomes (Brophy & Good, 1986; Walberg, 1986; Walker de Felix, Waxman, Paige, & Huang, 1993). Yet very few have specifically focused on bilingual students' classroom processes, particularly at the secondary school level, to identify variables contributing to their learning.

In examining the role of primary language development in promoting educational success for language minority students, Cummins (1981, 1986) develops the Common

Underlying Proficiency hypothesis and states that the level of ability in the home language supports second language acquisition in the target language. Many of the secondary immigrants and bilingual students, however, do not have sufficient home language abilities to transfer skills at the secondary school level. According to a statistical analysis report of the National Center for Education in Statistics, among eighth grade Hispanic students in the nation, only 16% of them indicate that they have a high proficiency in their home language, while 84% indicate that they have only a low or moderate proficiency (Bradby, Owings, Quinn, 1992). This poses a great challenge to classroom teachers. This study will test Cummins hypothesis and the strength of the relationship between primary language skills and English acquisition.

The purpose of this study is to investigate bilingual classroom instructions and to determine the effect of home language and some instructional practice variables on language minority or bilingual secondary students' learning of English language. More specifically, this study addresses two research questions:

(1) What is secondary school teachers' instruction in bilingual classrooms in the dimensions of teacher's interaction with students, classroom setting, purpose of interaction, and nature of interaction?

(2) Are students' primary language skills and some classroom instructional variables significantly associated with these students' English acquisition?

Data Sources

Two types of data were collected. Students' achievement data was derived from the school district, and teachers' classroom behavior data was collected by trained observers.

Methods

Subjects

The participants in the present study included 17 teachers and their students from 12 secondary schools of an urban school district located in the south central region of the

United States. This school district was selected because of the high enrollment of Hispanic students. About 45% of the students in the school district were Hispanic, 42% of them were white, 7% were black, and 6% were others. A large proportion of the Hispanic students was preliterate immigrants. A majority of the Hispanic students came from low- or working-class families. Their achievement levels were below state and district averages.

Instruments

The classroom observation instrument used in this study is the Teacher Role Observation Schedule (Waxman, Wang, Lindvall, & Anderson, 1988). It is designated to systematically document teacher behaviors in the context of ongoing classroom instruction-learning processes. Teachers were observed with reference to (a) their interaction with students or others; (b) the settings in which observed behaviors occur; (c) the purpose of interaction; and (d) the specific type of behavior they are using. Each teacher was observed for ten 30-second intervals at two separate times during each data collection period. This observation instrument is a low inference instrument that has been found to be reliable and valid. For the present study, the median inter-observer reliability (Cohen's Kappa) is .96.

The English language proficiency instruments include the IDEA Proficiency Test (IPT) and a locally produced Spanish literacy test. Both tests were administered to the students early in the fall semester and again at the end of school year to measure students' progress over time.

Procedures

The observations were conducted during regular classroom instruction at the beginning, middle, and towards the end of the school years. Trained observers marked all activities that were taking place simultaneously, then the forms were scanned and computed to generate a score representing the percentage of time the teacher engaged in each activity. Descriptive statistics report the means and standard deviations of the percentages of time of observed teacher behaviors. Correlation coefficients identify home language and classroom instruction variables related to student achievement in an English test given at the end of

school year. The multiple regression analysis shows the effects of these variables on students' English achievement.

Results

Table 1 presents the descriptive results. The results indicate that, bilingual teachers generally spent over 75% of time focusing on instructional issues, and about 15% focusing on classroom management. They taught students in whole class setting over 50% of the time. Their classroom behaviors focused mostly on the task's content (65% of time), followed in descending order by (a) responding to student signal, (b) communicating task's procedures, (c) praising student performance, (d) checking student's work, and (e) discussing student's work plan or progress. They seldom spent time on praising student behaviors or making contact with the student in exploratory activities. Their most frequently used nature of interaction was explaining (34%), followed by questioning, commenting, and listening.

Insert Table 1 about here

The Pearson Product Moment correlation results indicated that eight instructional variables were significantly ($p<.05$) correlated with students' year-end achievement scores in English. These variables include teacher's time spent on (a) interacting with students instructionally; (b) focusing on the task's content; (c) helping students complete work on time; (d) encouraging self-management; (e) encouraging extended student responses; (f) cueing or prompting; (g) demonstrating; and (h) listening.

Table 2 displays the overall effect of the ten variables on bilingual students' English acquisition. The results revealed that the pretest scores in English and in Spanish and the eight instructional variables had an overall significant effect on students' English

achievement, $F(10, 281)=11.41$, $p<.001$. The multiple correlation of the ten variables was .54, which explained about 30% of the variance in students' year-end English scores.

Insert Table 2 about here

Table 3 displays the beta weight, probability, and tolerance value of the ten variables on bilingual students' English acquisition. The four independent variables with beta weight significantly different from 0 were pretest scores in English, pretest scores in Spanish, helping student complete work on time, and encouraging self-management. Pretest scores in English had a significant effect on year-end English scores at $p<.001$ level, pretest scores in Spanish had a significant effect on year-end English scores at $p<.05$ level, and encouraging self-management had a significant effect on year-end English scores at $p<.001$ level. Helping student complete work on time, however, showed no statistically significant effect on year-end English scores in the regression because it was moderately correlated with encouraging self-management ($r=.51$, $p<.001$). This variable had a relatively low tolerance value (below .40), suggesting there is multi-colinearity between this variable and others. Whatever relationship this variable had with students' year-end English scores was redundant with encouraging self-management. Interacting with students instructionally and focusing on the task's content also had low tolerance values, since these two variables were strongly correlated to each other (r-.84). The simple correlation between each of the two variables with English acquisition was significant but very low ($r=.12$). Both variables appeared to have no significant effect on English acquisition in the regression model.

Insert Table 3 about here

Since the purpose of the multiple regression is to determine the variables that significantly affected students' English acquisition during the year the classroom instruction

was observed, students' initial differences in English had to be controlled. After the initial difference in English was statistically controlled, Spanish pre-test scores and the variable of encouraging self-management are the two remaining variables that showed significant positive effects on students' English achievement at the end of the school year.

Discussion and Educational Significance

The enrollment of immigrant and non-English speaking students in public schools has been rapidly increasing over the past few decades, especially in southern states like Texas, Florida, and California (National Center for Education Statistics, 1994). These students come from very diverse backgrounds and many of them encounter personal, social, and learning difficulties in schools. These students also have the highest dropout rate and at-risk of academic failure (National Center for Education Statistics, 1994). It is crucial to find out what are actually occurred in their classroom teaching and learning processes and what can help them by identifying the positive variables that contribute to their success in schools. The results of this study indicate that, in general, cognitive processes in bilingual classroom are teacher-centered. Teachers spent a majority of time interacting with students for instructional purpose and focusing mainly on task's content in the whole class setting. Peer group support was not emphasized in learning English. Teachers rarely placed students in paired or small group, or encouraged students to help each other. Considering that a large proportion of these Hispanic students is new immigrant and/or pre-literate, many of them have found themselves with increasing feeling of marginality. These bilingual students need the opportunity to collaborate or seek help and support from their classmates and teachers to be more assimilated into the mainstream. Research concerning bilingual acquisition has found that the linguistic, cognitive, and social character of the bilingual child develop simultaneously (Garcia, 1993). Teachers need to help these bilingual students engage in cooperative learning. On the basis of on the observational evidence shown in this

study, there appears to be a need of teachers' sensitivity to foster support networks and social identity among these students.

Two findings of this study serve the purpose of identifying the possible variables that enhance bilingual students' English acquisition.

First, one finding of this study supports previous research reports that prior home language skills affect English learners' English achievement. Second language acquisition is influenced by native language linguistic structures and rules of discourse. Cummins' hypothesis (1981) was upheld, as the Spanish pretest scores accounted for most of the variance in the model.

Another finding reveals that classroom instructional strategies affect LEP students' English achievement. Teacher's encouraging student's self-management is another influential variable. Unlike the other variables above that correlated significantly with English achievement, encouraging self-management does not focus on the language or content task. Instead it appears to be similar to Henze and Lucas' (1993) feature that is related to teachers' high expectations. On the other hand, encouraging self-management may only be significant to this particular population. Bilingual students use different reading strategies than monolingual students in their second language (Padron, 1986). As preliterate adolescents, these students had not been well socialized to the school. Most of them had to learn to cop instructional mode and classroom culture at schools. They need to learn to pace and organize their time to be more efficient. Secondary school teachers usually do not have to focus on such skills. Perhaps those teachers who took seriously the task of acculturating this new population and gave the responsibility for learning to the student were the most effective.

Pallas, Natriello, and McDill (1989) suggest that the population growth among language minority students may be underestimated. Educators are concerned with the changing demographic because immigrant and bilingual secondary students from the fastest growing groups need additional help. This study points out two factors that may help

schools meet the needs. First, home language skills provide an important foundation to second language acquisition and should not be overlooked, even among adolescents. Second, teachers who encourage the most difficult students to manage their own learning may promote greater English acquisition.

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Table 1.

Teacher Instruction in Bilingual Classrooms

	M	SD
Interaction		
A. No interaction	3.42	10.47
B. Interaction with other adults	0.43	2.06
C. Interaction with student(s)/Instructional	78.37	21.17
D. Interaction with student(s)/Managerial	15.97	16.19
E. Interaction with student(s)/Personal	1.81	5.70
Setting		
A. Teacher's desk	2.83	6.55
B. Student's desk	6.71	10.69
C. Small group	3.50	13.38
D. Whole class	56.02	35.75
E. Traveling	16.63	19.73
F. Other	14.31	24.31
Purpose of Interaction		
A. Responding to student signal	48.10	35.27
B. Discussing student's work plans/progress	21.58	22.51
C. Determining the difficulty of the task	5.05	11.59
D. Communicating the task's procedures	37.55	25.00
E. Communicating the task's criteria for success	18.59	23.91
F. Focusing on the task's content	65.00	24.06
G. Restructuring specific learning task	7.44	10.17
H. Helping student complete work on time	10.05	16.10
I. Checking student's work	24.45	22.86
J. Encouraging self-management	10.00	14.38
K. Encouraging students to help each other	5.00	10.34
L. Encouraging students to succeed	12.07	15.76
M. Encouraging extended student responses	13.26	16.56
N. Showing personal regard for student	11.08	14.23
O. Contacting with student in exploratory activities	3.42	6.73
P. Showing interest in student's work	12.12	16.56
Q. Praising student behavior	2.71	6.12
R. Praising student performance	26.58	22.98
S. Correcting student behavior	14.51	15.94
T. Correcting student performance	20.92	22.26
U. Other (specify)	5.60	9.85
Nature of Interaction		
A. Questioning	26.11	10.81
B. Explaining	34.46	19.40
C. Cueing or promoting	6.64	7.87
D. Demonstrating	3.76	6.82
E. Modeling	1.57	5.80
F. Commenting	13.84	11.59
G. Listening	13.61	14.52

Table 2

The Overall Effect of the Ten Variable on Bilingual Students' English Acquisition

Source	SS	df	MS	F	p
Between Groups	1046.79	10	104.67	11.41	0.0001
Within Groups	2486.30	271	248.63		
Total	3533.08	281			

R^2=0.2963.

Table 3

The Beta Weight, Probability, and Tolerance Values of the 10 Variables on Bilingual Students' English Acquisition

Variable	Beta Weight	Probability	Tolerance
Pretest scores in English	.401	0.0001***	0.920
Pretest scores in Spanish	.130	0.0163*	0.904
Interacting with student instructionally	.009	0.9363	0.221
Focusing on the task's content	.092	0.3474	0.274
Helping students complete work on time	-.148	0.0884	0.345
Encouraging self-management	.273	0.0003***	0.465
Encouraging extended student responses	.086	0.2340	0.504
Cueing or prompting	.115	0.1419	0.429
Demonstrating	-.004	0.9511	0.574
Listening	-.041	0.5965	0.441

* $p < .05$. *** $p < .001$.